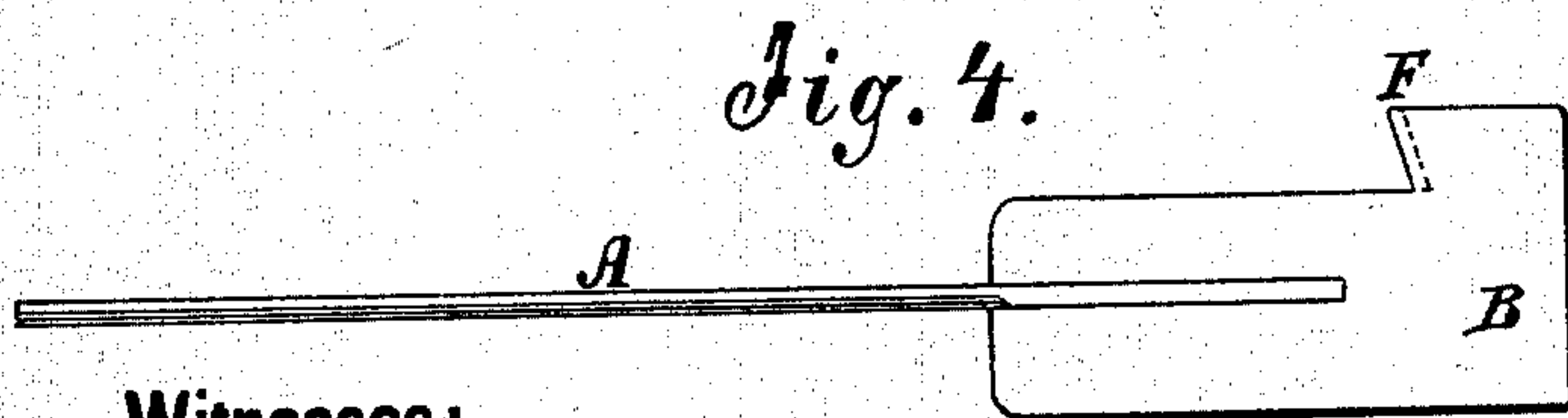
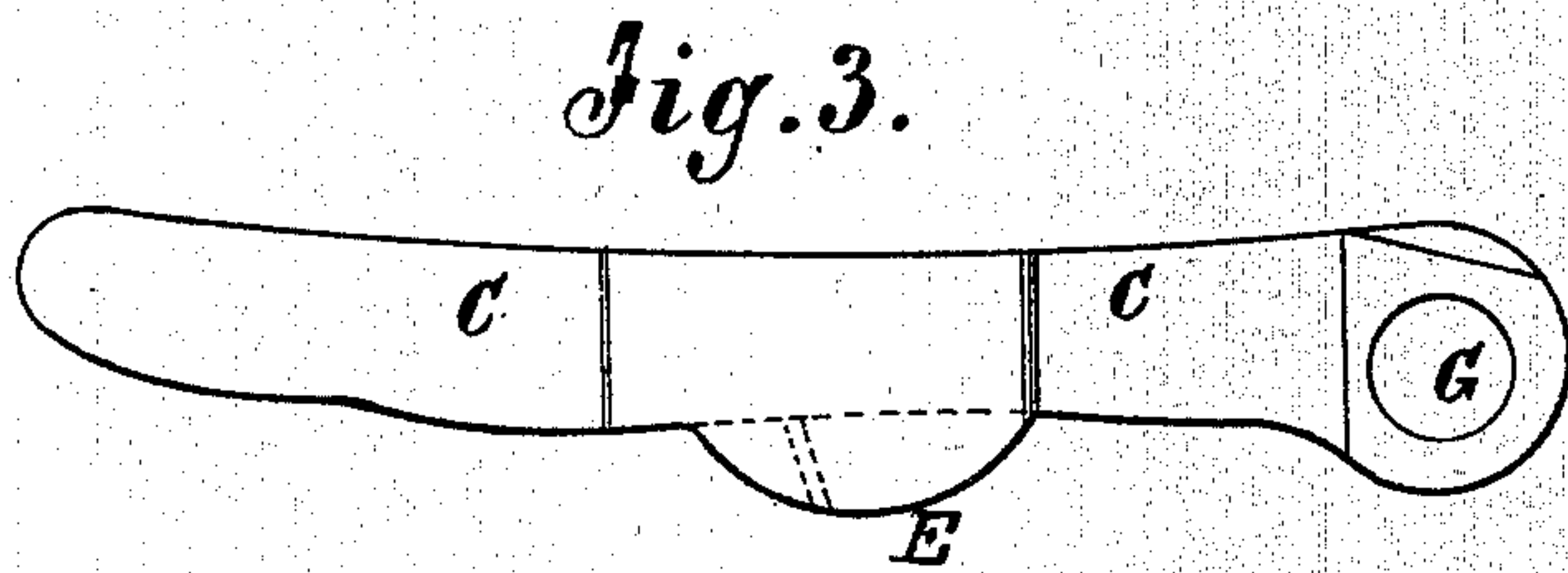
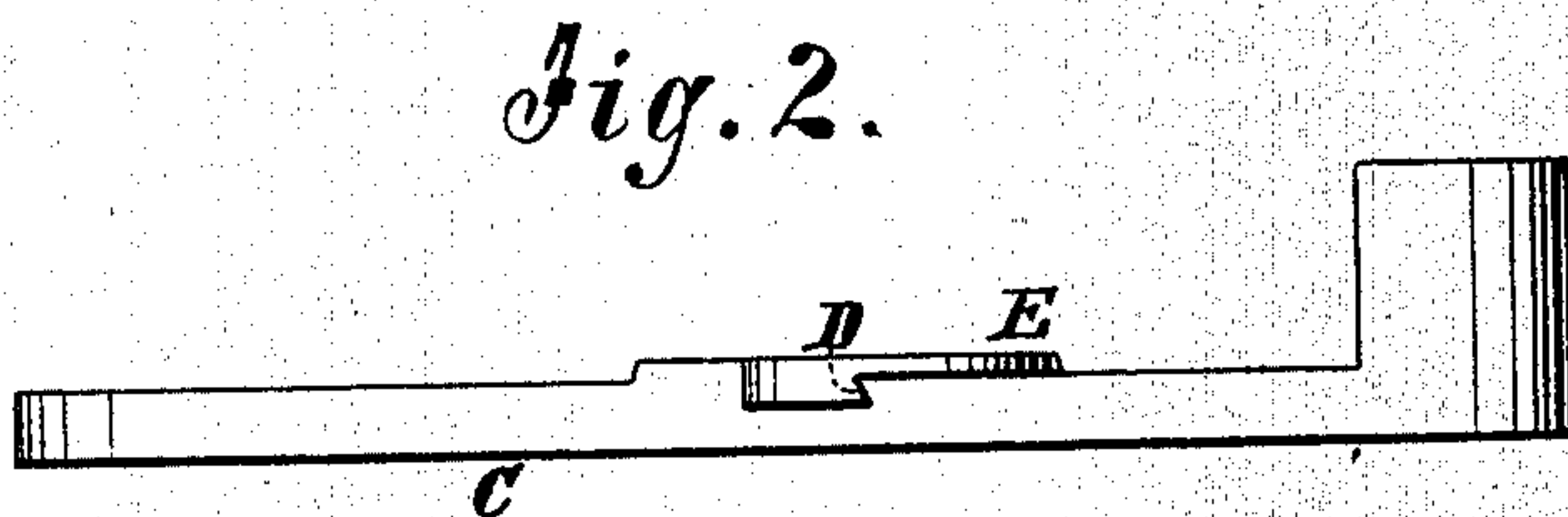
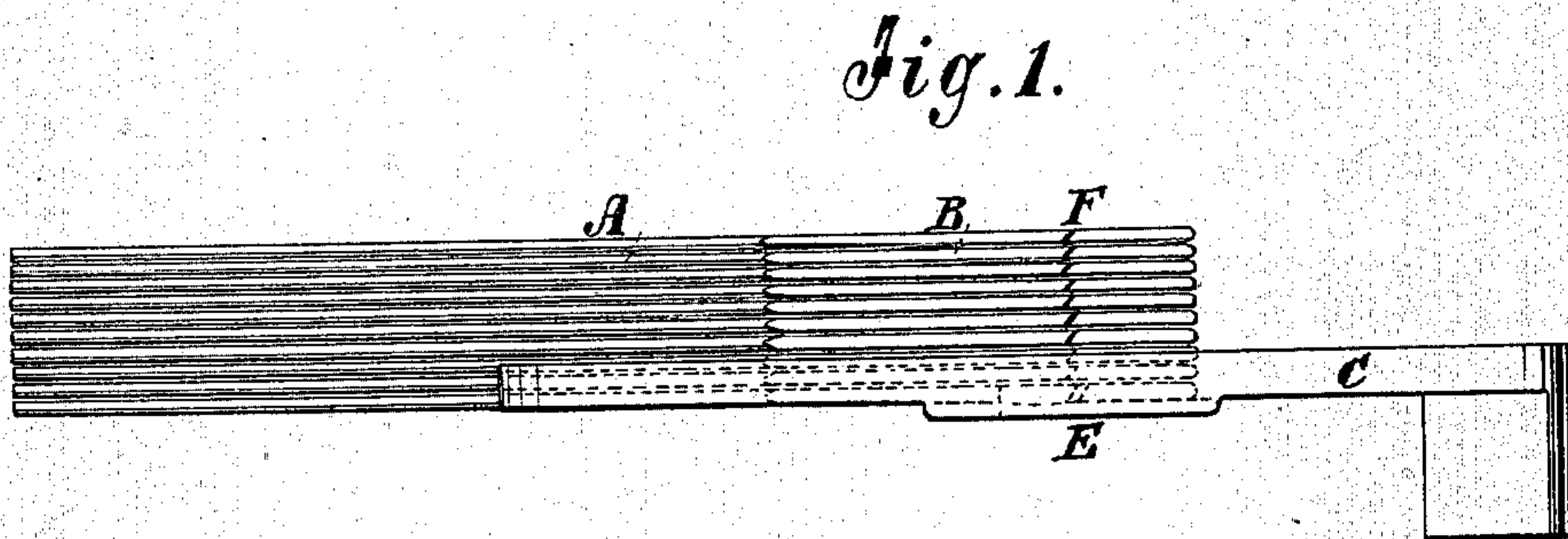
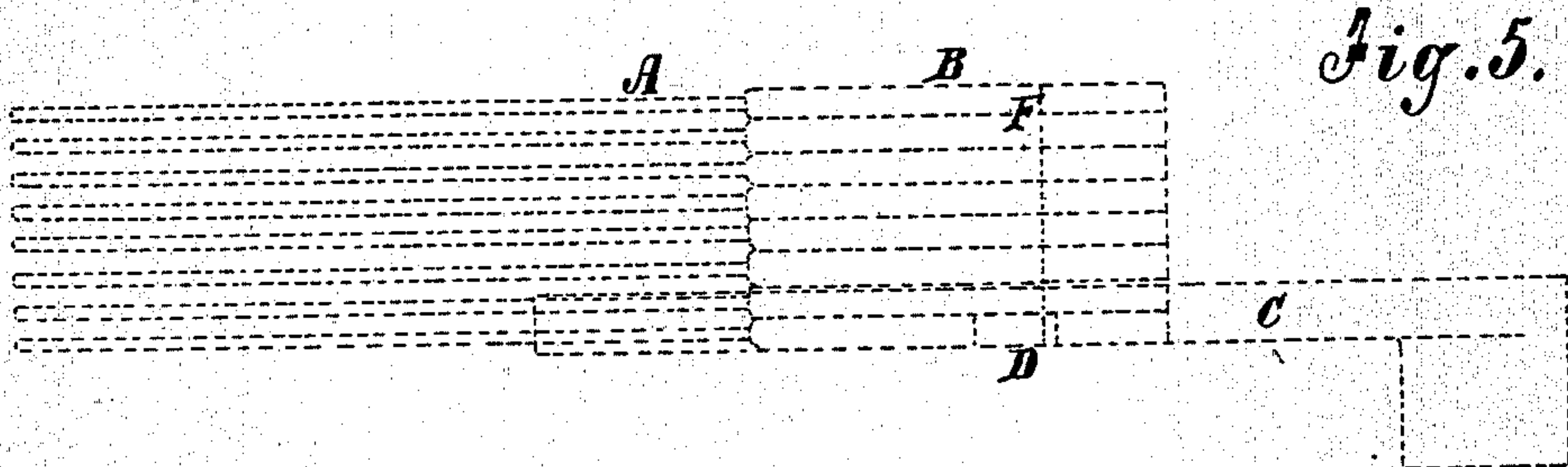


E. PICKFORD.

Looms for Weaving Piled Fabrics.

No. 139,328.

Patented May 27, 1873.



Witnesses:

A. Benneken Dorf.
C. S. Quinn

Inventor:

E. Pickford
Per *Wm. L. L.*
Attorneys.

UNITED STATES PATENT OFFICE.

EDWARD PICKFORD, OF NEW BRUNSWICK, NEW JERSEY.

IMPROVEMENT IN LOOMS FOR WEAVING PILED FABRICS.

Specification forming part of Letters Patent No. **139,328**, dated May 27, 1873; application filed April 19, 1873.

To all whom it may concern:

Be it known that I, EDWARD PICKFORD, of New Brunswick, in the county of Middlesex and State of New Jersey, have invented a new and useful Improvement in Carpet-Looms, of which the following is a specification:

For withdrawing the wires used in weaving pile fabrics I provide a hook with a guard on one side of it to bear against the side of the wire-head, to which the wire is attached, to prevent the hook from shifting so far over as to engage the next wire at the same time, and to insure the hook against shifting in the other direction, so as to slip off from the head of the wire. I make the face of the hook, and also the face of the shoulder of the plate or head of the wire with which the hook engages, like a half dovetail, beveled, and relatively arranged with the guard, that they are so locked together that all liability to disconnect during the operation of withdrawing the wire is avoided.

Up to this time the face of the hook and the face of the wire-head have always been made square to the plane of the hook and the wire, so that whenever the arm which carries the hook becomes loose, or can vibrate laterally a little for any cause, or in case the plates do not "register" exactly with the hook, it is liable to slip off the head on one side and fail to draw the wire, or slip a little too far on the other side and engage two wires, which, in either case, deranges the operation of weaving. To avoid this it has been customary to increase the thickness of the heads beyond that of the wires and increase the thickness of the hook correspondingly; but this does not wholly overcome the difficulty, and it also creates another, which it is highly desirable to avoid, viz., the separation of the wires, so that they are sprung together by the reed in beating up the fabric and soon

get curved thereby so that a good deal of labor must be expended in straightening them.

Figure 1 is a plan view of a series of wires, and the device for withdrawing them arranged according to my improvement. Fig. 2 is a plan of the pulling device. Fig. 3 is a side elevation of the pulling device. Fig. 4 is a side elevation of one of the wires and its head. Fig. 5 is a plan view of a series of wires and a pulling device in dotted lines, showing the arrangement heretofore employed.

A represents the wires; B, the wire-heads; C, the pulling device; D, the hook; E, the guard, which I employ in connection with it; and F, the shoulders of the heads, with which the hook engages. The said pulling device is mounted on a rod or bolt in its hole, G, which is connected with operating mechanism not represented. The guard E, which I employ to prevent the hook from engaging the head of the adjacent wire, consists of the plate represented in the drawing extending down from the puller by the side of the hook and in front of it so as to strike the side of the head in case the puller has any tendency to swing toward the next hook and prevent it from doing so, as represented in the drawing. The bevel face of the hook D and the bevel shoulders F of the head B are also clearly shown, and their operation will be understood without further explanation.

What I claim as new is—

1. The combination of the guard E with the wire-puller C and its hook, D, substantially as specified.

2. The hook D provided with a beveled face, and the plates or wire-heads provided with beveled shoulders F, in combination with the said guard E, substantially as specified.

Witnesses: EDWARD PICKFORD.

ALFRED MARCH,
J. KEARNY RICE.